MR557322 (82b:58019) 58C28 58-01 92A20
Riemenschneider, Oswald
Die Katastrophentheorie von René Thom. Versuch einer Einführung. (German)
Mitt. Math. Ges. Hamburg **10,** *no. 7,* 553–572 (1979),

This is basically an address to the Mathematical Society of Hamburg in which the author illustrates the catastrophe theory applications of Thom and Zeeman with the decision model of war/no war of C. A. Isnard and E. C. Zeeman [*The use of models in the social sciences*, pp. 44–100, Westview Press, Boulder, Colo., 1976]. He emphasizes the distinctions between the Maxwell convention and the perfect delay convention. With all the excellent and justifiably correct catastrophe models (e.g., light caustics, elastic buckling, etc.) it seems odd that the author would choose a "metaphysical" model from sociology to illustrate the controversial catastrophe theory. For instance, it is not obvious that such parameters as "military action" or "threat" are linearly ordered, much less differentiable. Furthermore, the interpretation of potential and mechanism in sociological models seems unbelievably difficult. A more realistic approach to catastrophe models in sociology is the statistical catastrophe theory of L. Cobb [Behavioral Sci. **23** (1978), no. 5, 360–374; MR0517512] in which nonlinear models with possible singularities are statistically fitted to experimental data without a priori hypotheses of mechanism, etc. *Bill Watson*